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10/743,554	12/22/2003	Demetrios James Tsillas	E2003-701010	5061

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EXAMINER
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ART UNIT	PAPER NUMBER
2446	

NOTIFICATION DATE	DELIVERY MODE
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>01 March 2010</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-16</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-16</u> is/are rejected.
7)☐ Claim(s) _____ is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>12/22/2003</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All   b)☐ Some * c)☐ None of:
        1.☐ Certified copies of the priority documents have been received.
        2.☐ Certified copies of the priority documents have been received in Application No. _____.
        3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)
1)☒ Notice of References Cited (PTO-892)
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.
5)☐ Notice of Informal Patent Application
6)☐ Other: _____.

Detailed Action

This Office Action is response to the application (10743554) filed on 03/01/2010.

Continued Examination Under 37 CFR 1.114

A request for continued examination under 37 CFR 1.114. including the fee set forth in

37 CFR 1.17(e), was filed in this application after final rejection. Since this application is

eligible for continued examination under 7 CFR 1.114, and the fee set forth in 37 CFR

1.17(e) has been timely paid, the finality of the previous Office action has been

withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 1/18/08 has been

entered.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found

in a prior Office action.

Claims 1-7, 9-11, 13-16 are rejected under 35 U.S.C. 103(a) as being unpatentable

over **Ishii** US patent No. **US 20010021177** in view of **Finn US 20040081171**

Regarding claim 1, Ishii teaches wherein a method for determining a spanning tree,

the method comprising acts of:

determining a root bridge identifier **(e.g., a root bridge determines its value –**

[0059]);

identifier in a plurality of network forwarding devices **(e.g., Fig. 5 "bridge A-E")**,

at least two of which are each coupled through a core network via at least one port and

participate in a same spanning tree **(e.g., Fig. 5 "bridge A-E")**, wherein the at least one

port does not run spanning tree protocol **(e.g., FIG. 5A-5E is established, a spanning**

tree is configured such that bridge A is defined as a root bridge, and a receiving

port oriented to bridge D of bridge C is defined as blocked port B – [0212]); and

      using, by the at least two of the plurality of network forwarding devices **(e.g., Fig.**

5A-E "Bridge D and Bridge C"), the root bridge identifier before and after

reconfiguration of the same spanning tree **(e.g., in Fig. 5-6 "an operation for**

reconfiguring a spanning tree within a short time is executed") and without having

to exchange the root bridge identifier in a network message **(bridge D transmits the**

BPDU having root ID changed to the MAC address of the bridge D itself "e.g., root

ID here is replaced by MAC address of the bridge while transmitting from initial

point" from the representative port D to blocked port B of bridge C – [0216;

"inferior" - 0219; 0244]).

      However, Ishii merely discloses the term "the root bridge identifier being used as

a root bridge"

      Finn teaches that it is well known to have system wherein "the root bridge

identifier being used as a root bridge" **(e.g., Fig. 1, unit 144 "CIST bridge ID" – [0024])**

in order to make the system more efficient and less costly.

      It would have been obvious to one ordinary skill in the art to modify Ishii's

invention by utilizing a method for forwarding all packets into the spanning tree network

in which the CIST root identifier field 116 contains the identifier of the bridge assumed to

be the root of the common and Internal Spanning Tree, which may be in the same MSTP Region as the bridge sourcing the BPDU message 100, in another MSTP Region or in part of the bridged network that is not running MSTP. The external path cost field 118 contains a value representing the lowest cost from the bridge sourcing the BPDU 100 to the CIST root identified in field 116 without passing through any other bridge in the same region as the bridge that is sourcing the BPDU message 100, as taught by Finn [0024].

Regarding claim 2, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the act of determining the root bridge identifier includes an act of configuring, at the at least two of the network forwarding devices, the root bridge identifier as being the root bridge in the spanning tree **(e.g., in Fig. 5-6 "an operation for reconfiguring a spanning tree within a short time is executed")**

Regarding claim 3, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein at the at least two of the network forwarding devices, a same root bridge path cost **(e.g., a data portion of the above mentioned BPDU includes at least root ID, bridge ID, root path cost – [0020])**.

Regarding claim 4, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the act of determining a root bridge identifier further comprises an act of configuring, in a respective memory of the at least two of the plurality of network forwarding devices, an entry for the root bridge identifier **(e.g., in Fig. 5-6 "an operation for reconfiguring a spanning tree within a short time is executed")**

Regarding claim 5, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein, for at least one respective access port of the at least two of the plurality of network forwarding devices, a root path cost **(e.g., a data portion of the above mentioned BPDU includes at least root ID, bridge ID, root path cost – [0020]).**

Regarding claim 6, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the root path costs for the at least one respective access port of the at least two of the plurality of network forwarding devices are the same value **(e.g., a data portion of the above mentioned BPDU includes at least root ID, bridge ID, root path cost – [0020]).**

Regarding claim 7, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the network includes a bridged network that couples the at least two network forwarding devices, and wherein the method further comprises an act of disabling, on at least one port of the at least two network forwarding devices coupled to the network, transmission of bridge protocol data units (BPDUs) between the at least two network forwarding devices **(e.g., communication is disabled between bridges A and B for any reason, communication between node "n1" connected to bridge B and node "n2" connected to bridge C is also disabled – [0081])**

Regarding claim 8, Ishii and Finn together taught the method as in claim 1 above. Finn further teaches wherein using Multiprotocol Label Switching (MPLS) **(MPLS – [0031]).**

Regarding claim 9, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein, on at least one respective access port of the at least two of the plurality of network forwarding devices, bridge protocol data units (BPDUs) **(Fig. 5-6 -- configuration bridge protocol data unit (BPDU) message)**.

Regarding claim 10, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the at least two of the plurality of network forwarding devices are coupled by another network, and the method further comprises communicating the root bridge identifier in at least one BPDU transmitted on the another **(Fig. 5-6 -- configuration bridge protocol data unit (BPDU) message)**.

Regarding claim 11, Ishii and Finn together taught the method as in claim 1 above. Ishii further teaches wherein the network includes a bridged network that couples the at least two network forwarding devices, and wherein the method further comprises an act of disabling, on at least one logical connection of the at least two network forwarding devices coupled to the network, transmission of bridge protocol data units (BPDUs) between the at least two network forwarding devices **(e.g., communication is disabled between bridges A and B for any reason, communication between node "n1" connected to bridge B and node "n2" connected to bridge C is also disabled – [0081])**

Regarding claim 12, Ishii and Finn together taught the method as in claim 1 above. Finn further teaches wherein using Multiprotocol Label Switching (MPLS) **(MPLS – [0031])**.

Regarding claim 13, Ishii and Finn together taught the method as in claim 1 above.

Ishii further teaches wherein on at least one respective access port of the at least two of

the plurality of network forwarding devices, bridge protocol data units (BPDUs) **(e.g.,**

Fig. -5-6 -- configuration bridge protocol data unit (BPDU) message).

Regarding claim 14, Ishii and Finn together taught the method as in claim 1 above.

Ishii further teaches wherein the at least two of the plurality of network forwarding

devices are coupled by another network, and the method further comprises

communicating the root bridge identifier in at least one BPDU transmitted on the

another network **(e.g., in Fig. 5-6 "an operation for reconfiguring a spanning tree in**

at least one BPDU within a short time is executed")

Regarding claim 15, Ishii and Finn together taught the method as in claim 1 above.

Ishii further teaches wherein the at least two of the plurality of network forwarding

devices are located at the edge of a provider network, and wherein the further

comprises an act of disabling, on at least one respective port of the at least two network

forwarding devices, each of the at least one respective ports being coupled to the

provider network, transmission of bridge protocol data units (BPDUs) between the at

least two network forwarding devices **(e.g., communication is disabled between**

bridges A and B for any reason, communication between node "n1" connected to

bridge B and node "n2" connected to bridge C is also disabled – [0081])

Regarding claim 16, Ishii and Finn together taught the method as in claim 1 above.

Ishii further teaches wherein the root bridge identifier is not assigned to any network

forwarding device in the spanning tree **(bridge D transmits the BPDU having root ID**

changed to the MAC address of the bridge D itself from the representative port D

to blocked port B of bridge C – [0216; "inferior" - 0219; 0244]).

Response to Amendment

Applicant's arguments with respect to claim(s) 1-16 have been considered but are moot

in view of the new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Sulaiman Nooristany whose telephone number is (571)

270-1929. The examiner can normally be reached on M-F from 9 to 5. If attempts to

reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeff Pwu,

can be reached on (571) 272-6798. The fax phone number for the organization where

this application or proceeding is assigned is 571-273-8300. Information regarding the

status of an application may be obtained from the Patent Application Information

Retrieval (PAIR) system. Status information for published applications may be obtained

from either Private PAIR or Public PAIR. Status information for unpublished

applications is available through Private PAIR only. For more information about the

PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to

the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-

9197 (toll-free).

SN   05/18/2010

/Jeffrey Pwu/

Supervisory Patent Examiner, Art Unit 2446